

Project2.SQL - ALMAZDI\Project2 (ALMAZDI\mscam (64)) - Microsoft SQL Server Management Studio

Object Explorer: ALMAZDI (SQL Server 15.0.2000.5 - ALMAZDI\mscam)

- Databases
 - System Databases
 - Database Snapshots
 - AdventureWorks
 - BankDOB
 - Banking
 - BankingDB
 - CollegeODB11
 - Company
 - Company3D
 - companyDB2
 - companyODB
 - CompanyODB8
 - companyman
 - dataDB
 - exercise
 - hotel
 - HotelDB
 - LibraryDB
 - Project2
 - Database Diagrams
 - Tables
 - System Tables
 - FileTables
 - External Tables
 - Graph Tables
 - dbo.Book
 - dbo.Library
 - dbo.Loan
 - dbo.Members
 - dbo.Payment
 - dbo.Review
 - dbo.Staff
 - Views
 - External Resources
 - Synonyms
 - Programmability
 - Service Broker
 - Storage
 - Security
 - TrainingCompany
 - TrainingCompanydb
 - Security
 - Server Objects
 - Replication

SQL Query1.sql - A. AZDI\mscam (58)


```

FROM Staff s
2020 Library lib ON s.LibraryID = lib.LibraryID
LEFT JOIN Book b ON lib.LibraryID = b.LibraryID
GROUP BY lib.LibraryName, s.FullName, s.Position;

--- Book Popularity Report---
SELECT
    b.Title,
    b.ISBN,
    b.Genre,
    COUNT(1 LoanID) AS TotalLoans,
    AVG(r.Rating) AS AvgRating
FROM Book b
2020 Loan l ON b.BookID = l.BookID
LEFT JOIN Review r ON b.BookID = r.BookID
GROUP BY b.BookID, b.Title, b.ISBN, b.Genre
HAVING COUNT(1 LoanID) >= 3;

---Member Reading History---
    
```

Results: 100 %

| Title | ISBN | Genre | TotalLoans | AvgRating |
|----------------------------|------------|-------|------------|-----------|
| Introduction to Algorithms | 0201910026 | Books | 7 | 5.00 |
| Cloud Computing | 0201910026 | Books | 7 | 5.00 |
| Physics Basics | 0201910026 | Books | 6 | 5.00 |
| Machine Learning Guide | 0201910026 | Books | 5 | 5.00 |
| Database Systems | 0201910026 | Books | 5 | 5.00 |
| Web Development Basics | 0201910026 | Books | 5 | 5.00 |
| Artificial Intelligence | 0201910026 | Books | 5 | 5.00 |
| Software Engineering | 0201910026 | Books | 5 | 5.00 |
| Computer Networks | 0201910026 | Books | 5 | 5.00 |
| Discrete Mathematics | 0201910026 | Books | 5 | 5.00 |
| Operating System Concepts | 0201910026 | Books | 5 | 5.00 |
| Digital Electronics | 0201910026 | Books | 5 | 5.00 |
| Data Science Handbook | 0201910026 | Books | 5 | 5.00 |
| Clean Code | 0201910026 | Books | 4 | 5.00 |
| Cyber Security Essentials | 0201910026 | Books | 4 | 5.00 |

Properties: Current connection parameters

- Aggregate Status
 - Connection failures: 0
 - Elapsed time: 00:00:00.016
 - Finish time: 12/30/2023 12:57:08 PM
 - Name: ALMAZDI
 - Rows returned: 0
 - Start time: 12/30/2023 12:57:08 PM
 - State: Open
- Connection
 - Connection name: ALMAZDI (ALMAZDI\mscam)
- Connection Details
 - Connection elapsed time: 00:00:00.016
 - Connection encryption: Not encrypted
 - Connection finish time: 12/30/2023 12:57:08 PM
 - Connection rows returned: 0
 - Connection start time: 12/30/2023 12:57:08 PM
 - Connection state: Open
 - Display name: ALMAZDI
 - Login name: ALMAZDI\mscam
 - Server name: ALMAZDI
 - Server version: 15.0.2000
 - Session Tracing ID: 64
 - SPID: 64

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SQL Query1.sql - A. AZDI\mscam (58)


```

b.ISBN,
b.Genre,
COUNT(1 LoanID) AS TotalLoans,
AVG(r.Rating) AS AvgRating
FROM Book b
2020 Loan l ON b.BookID = l.BookID
LEFT JOIN Review r ON b.BookID = r.BookID
GROUP BY b.BookID, b.Title, b.ISBN, b.Genre
HAVING COUNT(1 LoanID) >= 3;

---Member Reading History---
SELECT
    m.FullName AS MemberName,
    b.Title AS BookTitle,
    l.LoanDate,
    l.ReturnDate,
    r.Rating,
    r.Comment
FROM Members m
2020 Loan l ON m.MemberID = l.MemberID
2020 Book b ON l.BookID = b.BookID
LEFT JOIN Review r ON m.MemberID = r.MemberID AND b.BookID = r.BookID
ORDER BY m.FullName, l.LoanDate;
    
```

Results: 100 %

| MemberName | Book Title | LoanDate | ReturnDate | Rating | Comment |
|------------------|----------------------------|------------|------------|--------|--|
| Basma Al-Raghi | Introduction to Algorithms | 2024-01-12 | 2024-01-05 | NULL | Very useful for clean coding practices |
| Basma Al-Raghi | Cloud Computing | 2024-02-20 | 2024-03-05 | NULL | |
| Alpha Al-Raghi | Physics Basics | 2024-01-10 | 2024-01-24 | 5 | Excellent reference book |
| Alpha Al-Raghi | Machine Learning Guide | 2024-02-18 | NULL | NULL | |
| Fatma Al-Mamari | Database Systems | 2024-01-05 | 2024-01-18 | 5 | Excellent reference book |
| Fatma Al-Mamari | Web Development Basics | 2024-02-12 | 2024-02-26 | NULL | |
| Hamed Al-Balushi | Artificial Intelligence | 2024-02-01 | 2024-02-14 | NULL | |
| Hassan Al-Badi | Software Engineering | 2024-02-10 | NULL | NULL | |
| Houda Al-Raghi | Computer Networks | 2024-02-05 | NULL | NULL | |
| Jakiah Al-Saleh | Discrete Mathematics | 2024-02-03 | NULL | NULL | |
| Musa Al-Mamari | Operating System Concepts | 2024-01-15 | NULL | NULL | |
| Musa Al-Mamari | Digital Electronics | 2024-02-22 | NULL | NULL | |
| Omar Al-Semari | Data Science Handbook | 2024-02-07 | 2024-02-21 | NULL | |
| Saleh Al-Balushi | Clean Code | 2024-01-07 | NULL | 4 | Very useful for clean coding practices |
| Saleh Al-Balushi | Cyber Security Essentials | 2024-02-15 | NULL | NULL | |

Properties: Current connection parameters

- Aggregate Status
 - Connection failures: 0
 - Elapsed time: 00:00:00.026
 - Finish time: 12/30/2023 1:03:32 PM
 - Name: ALMAZDI
 - Rows returned: 15
 - Start time: 12/30/2023 1:03:32 PM
 - State: Open
- Connection
 - Connection name: ALMAZDI (ALMAZDI\mscam)
- Connection Details
 - Connection elapsed time: 00:00:00.026
 - Connection encryption: Not encrypted
 - Connection finish time: 12/30/2023 1:03:32 PM
 - Connection rows returned: 15
 - Connection start time: 12/30/2023 1:03:32 PM
 - Connection state: Open
 - Display name: ALMAZDI
 - Login name: ALMAZDI\mscam
 - Server name: ALMAZDI
 - Server version: 15.0.2000
 - Session Tracing ID: 64
 - SPID: 64

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File Edit View Query Project Tools Window Help

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SQL Query1.sql - ALMAZDI\mozam (50)

```
1. LoanDate,
1. ReturnDate,
r. Rating,
r.Comment
FROM Members m
JOIN Loan l ON m.MemberID = l.MemberID
JOIN Book b ON l.BookID = b.BookID
LEFT JOIN Review r ON m.MemberID = r.MemberID AND b.BookID = r.BookID
ORDER BY m.FullName, l.LoanDate;

--- Revenue Analysis by Genre---
SELECT
b.Genre,
COUNT(l.LoanID) AS TotalLoans,
SUM(ISNULL(p.Amount, 0)) AS TotalFines,
AVG(ISNULL(p.Amount, 0)) AS AvgFinePerLoan
FROM Book b
JOIN Loan l ON b.BookID = l.BookID
LEFT JOIN Payment p ON l.LoanID = p.LoanID
GROUP BY b.Genre;
```

Results

| | Genre | TotalLoans | TotalFines | AvgFinePerLoan |
|---|--------------|------------|------------|----------------|
| 1 | Data Science | 1 | 0.00 | 0.000000 |
| 2 | Electronics | 1 | 0.00 | 0.000000 |
| 3 | Mathematics | 1 | 0.00 | 0.000000 |
| 4 | Programming | 3 | 4.00 | 1.333333 |
| 5 | Science | 1 | 3.00 | 3.000000 |
| 6 | Security | 1 | 0.00 | 0.000000 |
| 7 | Technology | 7 | 10.00 | 1.428571 |

Properties

Current connection parameters

Aggregate Status

| | |
|---------------------|-----------------------|
| Connection failures | |
| Elapsed time | 00:00:00.039 |
| Finish time | 12/30/2023 1:06:27 PM |
| Name | ALMAZDI |
| Rows returned | 7 |
| Start time | 12/30/2023 1:06:27 PM |
| State | Open |

Connection

| | |
|-----------------|-------------------------|
| Connection name | ALMAZDI (ALMAZDI\mozam) |
|-----------------|-------------------------|

Connection Details

| | |
|--------------------------|-----------------------|
| Connection elapsed time | 00:00:00.039 |
| Connection encryption | Not encrypted |
| Connection finish time | 12/30/2023 1:06:27 PM |
| Connection rows returned | 7 |
| Connection start time | 12/30/2023 1:06:27 PM |
| Connection state | Open |
| Display name | ALMAZDI |
| Login name | ALMAZDI\mozam |
| Server name | ALMAZDI |
| Server version | 15.0.2000 |
| Session Tracing ID | |
| SPID | 64 |

Name

The name of the connection.

Ready

Rainy days ahead
79°F

Search

Ln 239 Col 1 Ch 1 RWS

1:06 PM
12/30/2023